

## CLAIMS

What is claimed is:

1. A post-application expanding cosmetically acceptable composition for application to hair  
5 fibers of the scalp, eyebrows or eyelashes comprising at least one surfactant, a solvent for the  
surfactant, a volatile agent in an amount effective to cause the surfactant and solvent to interact  
and produce a foam on the hair fibers and thereby produce an expanded composition, and a film-  
forming agent, the film-forming agent being present in an amount effective to form a film after  
application of the composition to the hair fibers and, when the film sets, fix at least a portion of  
10 the expanded composition.
2. A post-application expanding cosmetically acceptable composition for application to hair  
fibers of the scalp, eyebrows or eyelashes comprising at least one surfactant, a solvent for the  
surfactant, a volatile agent in an amount effective to swell the composition after application to  
15 the hair fibers, and a film-forming agent, the film-forming agent being present in an amount  
effective to form a film and, when the film sets, fix at least a portion of the swelled composition  
in an expanded state.
3. The composition of Claim 2, wherein the composition includes about 1 to about 50% by  
20 weight of the film-forming agent, based on the total weight of the composition.
4. The composition of Claim 2, wherein the composition includes about 5 to about 40% by  
weight of the film-forming agent, based on the total weight of the composition.
- 25 5. The composition of Claim 2, wherein the composition includes about 8 to about 30% by  
weight of the film-forming agent, based on the total weight of the composition.
6. The composition of Claim 2, wherein the composition includes about 10 to about 25% by  
weight of the film-forming agent, based on the total weight of the composition.
- 30 7. The composition of Claim 2, wherein the film-forming agent is a polymer.

8. The composition of Claim 2, wherein the film-forming agent is a copolymer.

9. The composition of Claim 8, wherein the film-forming agent is selected from the group consisting of an acrylates copolymer, methacrylates copolymer, acrylamides copolymer, and  
5 mixtures thereof.

10. The composition of Claim 2, wherein the composition contains a colorant.

11. The composition of Claim 10, wherein the colorant is present in an amount sufficient to  
10 impart to the hair fibers a color other than white.

12. The composition of Claim 10, wherein the colorant is a pigment.

13. The composition of Claim 12, wherein the pigment is present in an amount such that the  
15 composition is suitable as a mascara.

14. The composition of Claim 12 wherein the pigment is a pigment dispersion.

15. The composition of Claim 14, wherein the pigment dispersion comprises water, an iron  
20 oxide and a second film forming agent.

16. The composition of Claim 2, wherein the composition contains a water-soluble viscosity  
increasing agent.

25 17. The composition of Claim 16, wherein the water-soluble viscosity increasing agent is  
selected from the group consisting of synthetic sucrose derivatives, cellulose gums and  
hydrophilic colloids.

18. The composition of Claim 2, wherein the composition is water-rinseable.

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19. The composition of Claim 2, wherein the composition is resistant to water rinsing.

20. The composition of Claim 2, wherein the composition is a gel, an emulsion or semi-solid in form.

21. The composition of Claim 2, wherein the composition is a gel based on an interpolymer gel reaction product.

22. The composition of Claim 21, wherein the composition contains about 0.05 to about 5% of the interpolymer gel reaction product.

23. The composition of Claim 21, wherein the interpolymer gel reaction product is formed from a quaternized cationic polymer and an anionic polymer.

24. The composition of Claim 2, wherein the composition contains an anionic surfactant.

25. The composition of Claim 24, wherein the anionic surfactant is selected from the group consisting of water-soluble salts of C<sub>10</sub> to C<sub>22</sub> fatty acids, alkyl sulfates, alkyl ether sulfates, alkyl monoglyceryl ether sulfates, alkyl monoglyceride sulfates, alkyl monoglyceride sulfonates, alkyl sulfonates, alkylaryl sulfonates, alkyl sulfosuccinates, alkyl ether sulfosuccinates, alkyl sulfosuccinates, alkyl amidosulfosuccinates, alkyl carboxylates, alkyl amidoethercarboxylates, alkyl succinates, fatty acyl sarcosinates, fatty acyl amino acids, fatty acyl taurates, fatty alkyl sulfoacetates, alkyl phosphates, alkyl ether phosphates, and mixtures thereof.

26. The composition of Claim 25, wherein the water-soluble salts of C<sub>10</sub> to C<sub>22</sub> fatty acids are stearic acid, palmitic acid, myristic acid selected from the group consisting of sodium, potassium and triethanolamine salts of palmitic acid, stearic acid, oleic acid, myristic acid, palm and coconut oil fatty acids, and mixtures thereof.

27. The composition of Claim 2, wherein the composition contains an amphoteric or zwitterionic surfactant.

28. The composition of Claim 27, wherein the amphoteric or zwitterionic surfactant is selected from the group consisting of amphocarboxylates, alkyl betaines, amidoalkyl betaines,

amidoalkyl sultaines, amphophosphates, phosphobetaines, pyrophosphobetaines, carboxyalkyl alkyl polyamines, alkyl amino monoacetates, alkyl amino diacetates, and mixtures thereof.

29. The composition of Claim 2, wherein the composition contains a nonionic surfactant.

30. The composition of Claim 29, wherein the nonionic surfactant is a polyoxyethylene derivatives of a polyol ester.

31. The composition of Claim 2, wherein the volatile agent has a vapor pressure from about 0.5 Torr to about 30,000 Torr, at a temperature of about 0° to about 100°C.

32. The composition of Claim 31, wherein the vapor pressure is from about 5.0 Torr to about 5,000 Torr.

33. The composition of Claim 31, wherein the vapor pressure is from about 100 Torr to about 2,500 Torr.

34. The composition of Claim 2, wherein the volatile agent is selected from the group consisting of n-pentane, isopentane, neopentane, n-butane, isobutane, isobutene, cyclopentane, hexane, trichlorotrifluoroethane, 1,2-dichloro, 1,1,2,2-tetrafluoroethane, hydrofluoroethers, and mixtures thereof.

35. A method for imparting a volumizing effect to hair of the scalp, eyebrows or eyelashes comprising the step of contacting the hair with the composition of Claim 2 for a time sufficient to obtain said effect.

36. A post-expanding composition comprising a film-forming agent, a surfactant, a solvent for the surfactant, and a volatile agent, wherein the film-forming agent is present in an amount effective to form a film that entraps at least a portion of foam formed by interaction of the volatile agent and the surfactant after the composition is applied to a hair fiber.

37. The composition of Claim 36, wherein the volatile agent has a vapor pressure from about 0.5 Torr to about 30,000 Torr, at a temperature of about 0° to about 100°C.

5 38. The composition of Claim 37, wherein the vapor pressure is from about 5.0 Torr to about 5,000 Torr.

39. The composition of Claim 37, wherein the vapor pressure is from about 100 Torr to about 2,500 Torr.

10 40. The composition of Claim 36, wherein the volatile agent is selected from the group consisting of n-pentane, isopentane, neopentane, n-butane, isobutane, isobutene, cyclopentane, hexane, trichlorotrifluoroethane, 1,2-dichloro,1,1,2,2-tetrafluoroethane, hydrofluoroethers, and mixtures thereof.

15 41. The composition of Claim 36, wherein the hair fiber is an eyelash.

42. The composition of Claim 41, wherein the composition contains a colorant in an amount sufficient to mask color that would otherwise be imparted to the eyelash in the absence of the colorant.

20 43. The composition of Claim 42, wherein the colorant is a pigment and it is present in an amount sufficient to impart to the eyelash a color approximating that of the pigment.

25 44. In a mascara composition, the improvement comprising including in the composition (i) at least one surfactant, (ii) a solvent for the surfactant, (iii) a volatile agent that will interact with the surfactant and the solvent to cause the mascara composition to expand after the composition is applied to eyelashes, and (iv) a film-forming agent in an amount effective to form a film that entraps at least a portion of the expanded composition and when set maintains at least a portion of the composition in an expanded state whereby the composition will impart a volumizing effect  
30 to the eyelashes upon which it is applied.

45. In a post-foaming composition comprising at least one surfactant, a solvent for the surfactant and a volatile agent which, after the composition is applied on a hair fiber, will cause the surfactant and solvent to foam, the improvement comprising including in the composition a colorant in an amount effective to impart color to the hair fiber.

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46. The composition of Claim 45, wherein the hair fiber is a scalp, eyebrow or eyelash hair fiber.

47. The composition of Claim 45, wherein the colorant is a pigment.

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48. The composition of Claim 45, wherein the improvement further comprises including in the composition, a film forming agent in an amount effective to entrap at least a portion of the foam when the film former sets thereby maintaining the composition in an expanded state and imparting a volumizing effect to the hair fiber.

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49. A post-application expanding cosmetically acceptable composition for application to hair fibers of the scalp, eyebrows or eyelashes comprising at least one surfactant, a solvent for the surfactant, a volatile agent in an amount effective to cause the surfactant and the solvent to produce a foam on the hair fibers which increases radial configuration of the composition on the hair fibers, and a film-forming agent in an amount effective to fix the increased radial configuration of at least a portion of the composition on the hair fibers.

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50. A post-application expanding cosmetically acceptable composition for application to hair fibers of the scalp, eyebrows or eyelashes comprising at least one surfactant, a solvent for the surfactant, a volatile agent in an amount effective to cause the surfactant and the solvent to produce on the hair fibers a foam lattice which increases radial configuration of the composition on the hair fibers, and a film-forming agent in an amount effective to fix at least a portion of the foam lattice in place whereby a volumizing effect is imparted to the hair fibers.

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